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FIG. 1

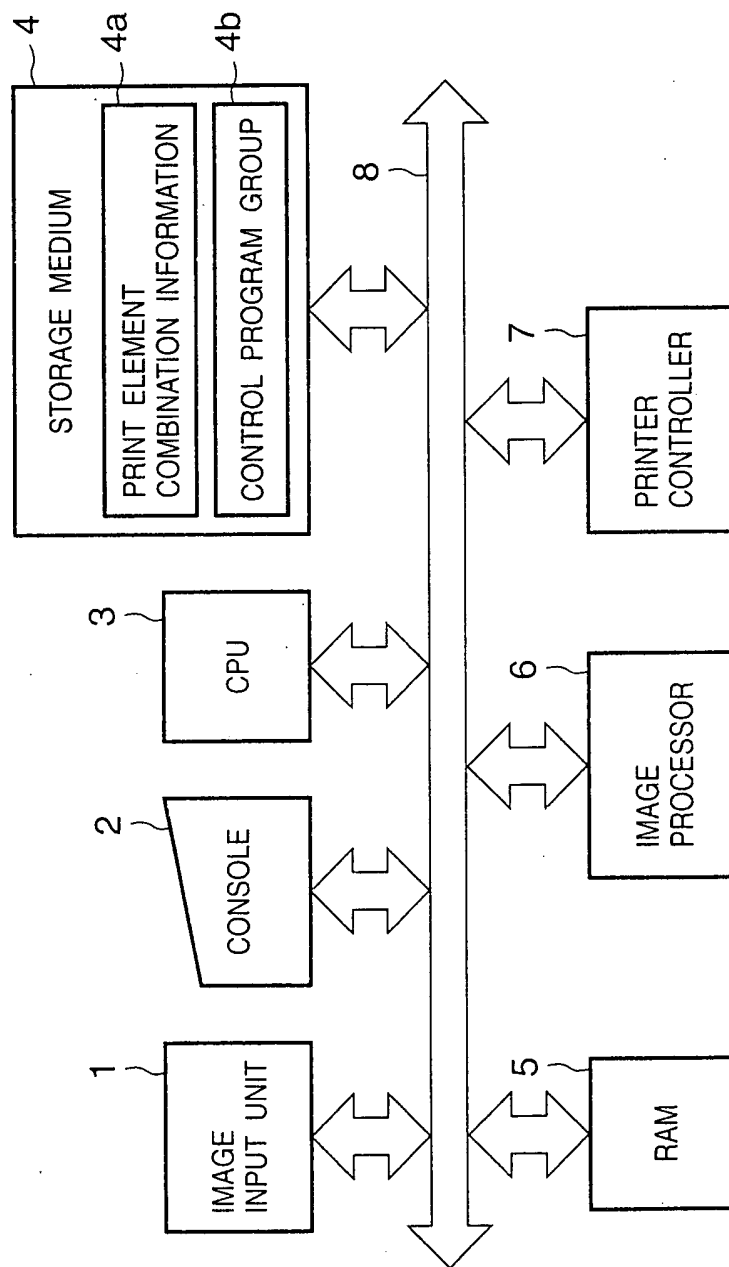
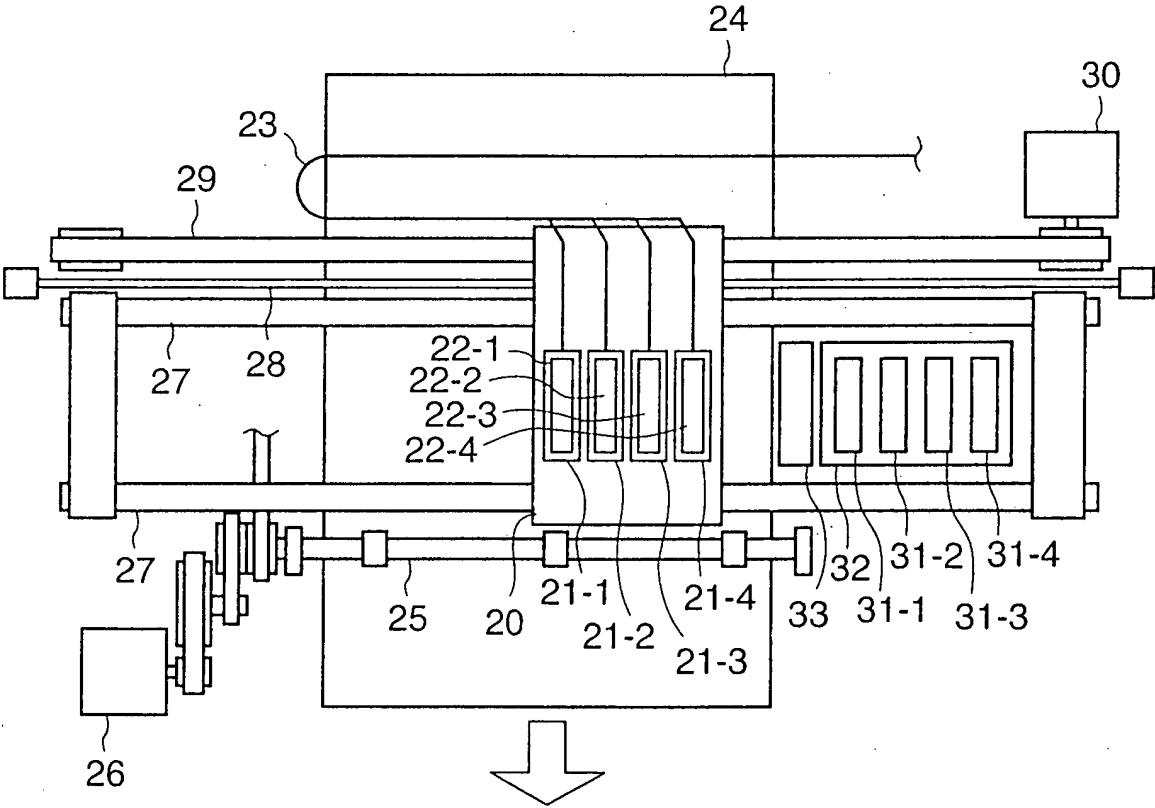


FIG. 2



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FIG. 3

L...LEFT R...RIGHT

GRAY SCALE VALUE	DENSITY GRADIENT INFORMATION	No.	a-1-1 L	a-1-1 R	a-2-1 L	a-2-1 R	a-3-1 L	a-3-1 R	a-4-1 L	a-4-1 R	b-1-1 L	b-1-1 R	b-2-1 L	b-2-1 R	b-3-1 L	b-3-1 R	b-4-1 L	b-4-1 R
1	LU	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1		2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
1		3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1		4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	RU	5	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1		6	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0
1		7	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
1		8	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
1	LL	9	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0
1		10	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
1		11	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
1		12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
1	RL	13	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
1		14	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
1		15	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
1		16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
2	LU	17	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
2		18	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0
2		19	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0
2		20	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0
2	RU	21	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0
2		22	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0
2		23	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0
2		24	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0
2	LL	25	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
2		26	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0
2		27	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0
2		28	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0
2	RL	29	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
2		30	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0
2		31	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
2		32	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
2	AV	33	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
2		34	1	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0
2		35	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
2		36	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
2		37	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0
2		38	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0
2		39	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0
2		40	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
3	LU	41	1	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0
3		42	0	0	1	0	1	0	0	0	0	0	0	1	0	0	0	0
3		43	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0	0
3		44	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
3	RU	45	0	1	0	1	0	0	0	0	1	0	0	0	0	0	0	0
3		46	0	0	0	1	0	1	0	0	0	0	1	0	0	0	0	0
3		47	0	0	0	0	0	1	0	1	0	0	0	0	1	0	0	0
3		48	0	1	0	0	0	0	0	1	0	0	0	0	0	0	1	0
3	LL	49	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0
3		50	0	0	0	1	0	0	0	0	0	0	1	0	1	0	0	0
3		51	0	0	0	0	0	1	0	0	0	0	0	0	1	0	1	0
3		52	0	0	0	0	0	0	0	1	1	0	0	1	0	0	1	0
3	RL	53	1	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0
3		54	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0
3		55	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1
3		56	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
3	AVE	41	1	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0
3		42	0	0	1	0	1	1	0	0	0	1	0	0	0	0	0	0
3		43	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0

FIG. 3 is a table showing the relationship between the Gray Scale Value and the Density Gradient Information for the various regions of interest (ROI) in the image. The table is organized into columns for the Gray Scale Value (1 to 56) and the Density Gradient Information (LU, RU, LL, RL, AV, AVE). The rows represent the various regions of interest (ROI) in the image, with the first column being the Gray Scale Value and the subsequent columns being the Density Gradient Information for each ROI. The table shows that the Gray Scale Value is generally higher for the LU and RU regions, and lower for the LL and RL regions. The AV and AVE regions show a more uniform distribution of Gray Scale Values.

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FIG. 4

L...LEFT R...RIGHT

GRAY SCALE VALUE	DENSITY GRADIENT INFORMATION	No.	a-1-1 L	a-1-1 R	a-2-1 L	a-2-1 R	a-3-1 L	a-3-1 R	a-4-1 L	a-4-1 R	b-1-1 L	b-1-1 R	b-2-1 L	b-2-1 R	b-3-1 L	b-3-1 R	b-4-1 L	b-4-1 R
4	LU	45	1	0	1	0	1	0	0	0	0	1	0	0	0	0	0	0
4		46	0	0	1	0	1	0	1	0	0	0	0	1	0	0	0	0
4		47	1	0	0	0	1	0	1	0	0	0	0	0	0	1	0	0
4		48	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1
4	RU	49	0	1	0	1	0	1	0	0	1	0	0	0	0	0	0	0
4		50	0	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0
4		51	0	1	0	0	0	1	0	1	0	0	0	0	1	0	0	0
4		52	0	1	0	1	0	0	0	1	0	0	0	0	0	0	1	0
4	LL	53	0	1	0	0	0	0	0	0	1	0	1	0	1	0	0	0
4		54	0	0	0	1	0	0	0	0	0	0	1	0	1	0	1	0
4		55	0	0	0	0	0	1	0	0	1	0	0	0	1	0	1	0
4		56	0	0	0	0	0	0	0	1	1	0	1	0	0	0	1	0
4	RL	57	1	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0
4		58	0	0	1	0	0	0	0	0	0	0	0	1	0	1	0	1
4		59	0	0	0	0	1	0	0	0	0	1	0	0	0	1	0	1
4		60	0	0	0	0	0	0	1	0	0	1	0	1	0	0	0	1
4	AVE	61	1	0	0	1	0	0	0	0	0	1	0	0	1	0	0	0
4		62	0	0	1	0	0	1	0	0	0	0	0	1	0	0	1	0
4		63	0	0	0	0	1	0	0	1	0	0	1	0	0	1	0	0
4		64	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	1
5	LU	65	1	0	1	0	1	0	0	1	0	1	0	0	0	0	0	0
5		66	0	1	1	0	1	0	1	0	0	0	0	1	0	0	0	0
5		67	1	0	0	1	1	0	1	0	0	0	0	0	0	1	0	0
5		68	1	0	1	0	0	1	1	0	0	0	0	0	0	0	0	1
5	RU	69	0	1	0	1	0	1	1	0	1	0	0	0	0	0	0	0
5		70	1	0	0	1	0	1	0	1	0	0	1	0	0	0	0	0
5		71	0	1	1	0	0	1	0	1	0	0	0	0	1	0	0	0
5		72	0	1	0	1	1	0	0	0	0	0	0	0	0	0	1	0
5	LL	73	0	1	0	0	0	0	0	0	1	0	1	0	1	0	0	1
5		74	0	0	0	1	0	0	0	0	0	1	1	0	1	0	1	0
5		75	0	0	0	0	0	1	0	0	1	0	0	1	1	0	1	0
5		76	0	0	0	0	0	0	1	1	0	1	0	0	1	1	1	0
5	RL	77	0	0	0	0	0	0	0	0	0	1	0	1	0	1	1	0
5		78	0	0	1	0	0	0	0	0	1	0	0	1	0	1	0	1
5		79	0	0	0	0	0	0	0	0	0	1	1	0	0	1	0	1
5		80	0	0	0	0	0	0	1	0	0	1	0	1	1	0	0	1
5	AVE	81	1	0	0	1	1	0	0	0	0	1	0	0	1	0	0	0
5		82	0	0	0	0	0	1	1	0	0	0	0	1	0	0	1	0
5		83	1	0	0	0	1	0	0	1	0	0	1	0	0	1	0	0
5		84	0	1	1	0	0	0	1	0	0	0	0	0	1	0	0	1
6	LL	85	1	0	1	0	1	0	0	1	0	1	1	0	0	0	0	0
6		86	0	1	1	0	1	0	1	0	0	0	0	1	1	0	0	0
6		87	1	0	0	1	1	0	1	0	0	0	0	0	0	1	1	0
6		88	1	0	1	0	0	1	1	0	1	0	0	0	0	0	0	1
6	RU	89	0	1	0	1	0	1	1	0	1	1	0	0	0	0	0	0
6		90	0	0	0	1	0	1	0	1	0	0	1	1	0	0	0	0
6		91	0	1	1	0	0	1	0	1	0	0	0	0	1	1	0	0
6		92	0	1	0	1	1	0	0	1	0	0	0	0	0	0	1	1
6	LL	93	0	1	1	0	0	0	0	0	1	0	1	0	1	0	0	1
6		94	0	0	0	1	1	0	0	0	0	1	1	0	1	0	1	0
6		95	0	0	0	0	0	1	1	0	1	0	0	1	1	0	1	0
6		96	1	0	0	0	0	0	0	1	1	0	1	0	0	1	1	0
6	RL	97	1	1	0	0	0	0	0	0	0	1	0	1	0	1	1	0
6		98	0	0	1	1	0	0	0	0	1	0	0	1	0	1	0	1
6		99	0	0	0	0	1	1	0	0	0	1	1	0	0	1	0	1
6		100	0	0	0	0	0	0	1	1	0	1	0	1	1	0	0	1
6	AVE	101	1	0	0	1	1	0	0	0	0	1	0	0	1	0	0	1
6		102	0	0	1	0	0	1	1	0	0	1	0	1	0	0	1	0
6		103	1	0	0	0	1	0	0	1	1	0	1	0	0	1	0	0

FIG. 5

L...LEFT R...RIGHT

GRAY SCALE VALUE	DENSITY GRADIENT INFORMATION	No.	a-1-1 L	a-1-1 R	a-2-1 L	a-2-1 R	a-3-1 L	a-3-1 R	a-4-1 L	a-4-1 R	b-1-1 L	b-1-1 R	b-2-1 L	b-2-1 R	b-3-1 L	b-3-1 R	b-4-1 L	b-4-1 R
7	LU	105	1	0	1	0	1	0	1	1	0	1	1	0	0	0	0	0
7		106	1	1	1	0	1	0	1	0	0	0	0	1	1	0	0	0
7		107	1	0	1	1	1	0	1	0	0	0	0	0	0	1	1	0
7		108	1	0	1	0	1	1	1	0	1	0	0	0	0	0	0	1
7	RU	109	0	1	0	1	0	1	1	1	1	1	0	0	0	0	0	0
7		110	1	1	0	1	0	1	0	1	0	0	1	1	0	0	0	0
7		111	0	1	1	1	0	1	0	1	0	0	0	0	1	1	0	0
7		112	0	1	0	1	1	1	0	1	0	0	0	0	0	0	1	1
7	LL	113	0	1	1	0	0	0	0	0	1	0	1	0	1	0	1	1
7		114	0	0	0	1	1	0	0	0	1	1	1	0	1	0	1	0
7		115	0	0	0	0	0	1	1	0	1	0	1	1	1	0	1	0
7		116	1	0	0	0	0	0	0	1	1	0	1	0	1	1	1	0
7	RL	117	1	1	0	0	0	0	0	0	0	1	0	1	0	1	1	1
7		118	0	0	1	1	0	0	0	0	1	1	0	1	0	1	0	1
7		119	0	0	0	0	1	1	0	0	0	1	1	1	0	1	0	1
7		120	0	0	0	0	0	0	1	1	0	1	0	1	1	0	0	1
7	AVE	121	1	0	0	1	1	0	0	1	0	1	0	0	1	1	0	1
7		122	0	1	1	0	0	1	1	0	0	1	0	1	0	0	1	0
7		123	1	0	0	1	1	0	0	1	1	0	1	0	0	1	0	0
7		124	0	1	1	0	0	1	1	0	0	1	0	0	1	0	0	1
8	LU	125	1	0	1	0	1	0	1	1	0	1	1	0	1	0	0	0
8		126	1	1	1	0	1	0	1	0	0	0	0	1	1	0	1	0
8		127	1	0	1	1	1	0	1	0	1	0	0	0	0	1	0	0
8		128	1	0	1	0	1	1	1	0	1	0	1	0	0	0	0	1
8	RU	129	0	1	0	1	0	1	1	1	1	1	0	1	0	0	0	0
8		130	1	1	0	1	0	1	0	1	0	0	1	1	0	1	0	0
8		131	0	1	1	1	0	1	0	1	0	0	0	0	1	1	0	1
8		132	0	1	0	1	1	1	0	1	0	1	0	0	0	0	1	1
8	LL	133	0	1	1	0	1	0	0	0	1	0	1	0	1	0	1	1
8		134	0	0	0	1	1	0	1	0	1	1	1	0	1	0	1	0
8		135	1	0	0	0	0	1	1	0	1	0	1	1	1	0	1	0
8		136	1	0	1	0	0	0	0	1	1	0	1	0	1	1	1	0
8	RL	137	1	1	0	1	0	0	0	0	0	1	0	1	0	1	1	1
8		138	0	0	1	1	0	1	0	0	1	1	0	1	0	1	0	1
8		139	0	0	0	0	1	1	0	1	0	1	1	1	0	1	0	1
8		140	0	1	0	0	0	0	1	1	0	1	0	1	1	1	0	1
8	AVE	141	1	0	0	1	1	0	0	1	0	1	1	0	1	0	0	1
8		142	0	1	1	0	0	1	1	0	1	1	0	1	0	0	1	0
8		143	1	0	0	1	1	0	0	1	1	0	1	0	0	1	0	1
8		144	0	1	1	0	0	1	1	0	0	1	0	0	1	0	1	1

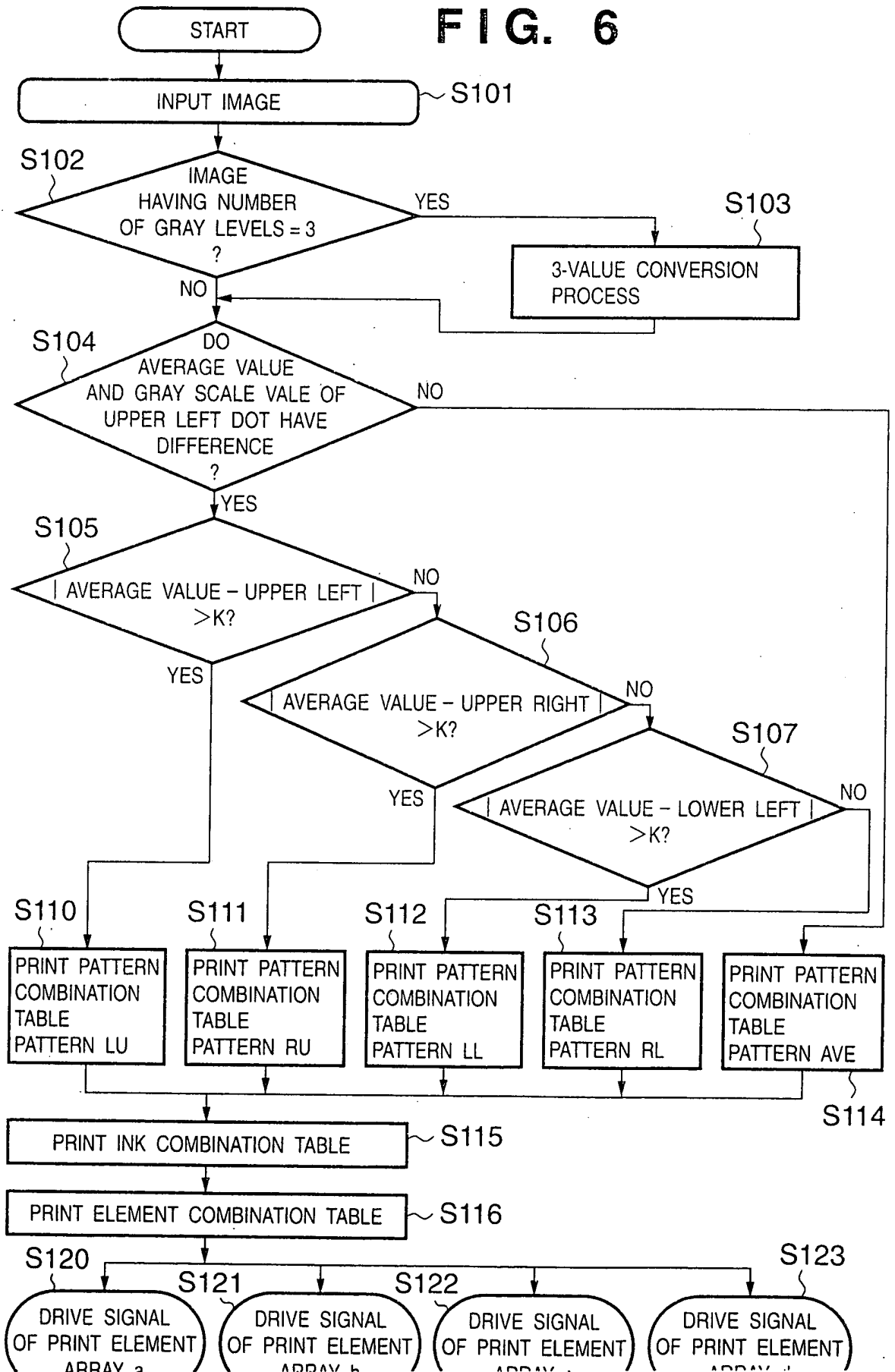
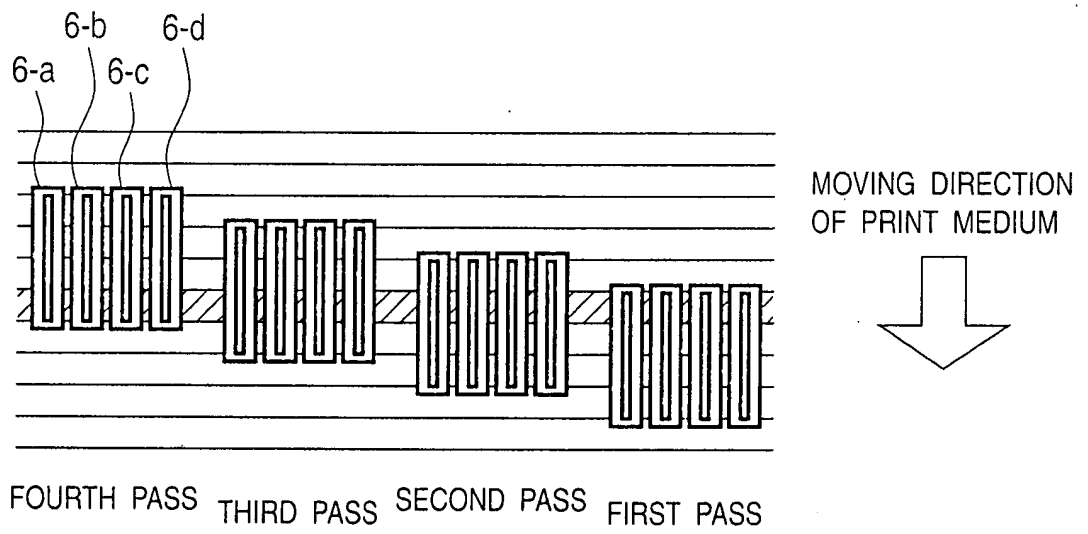
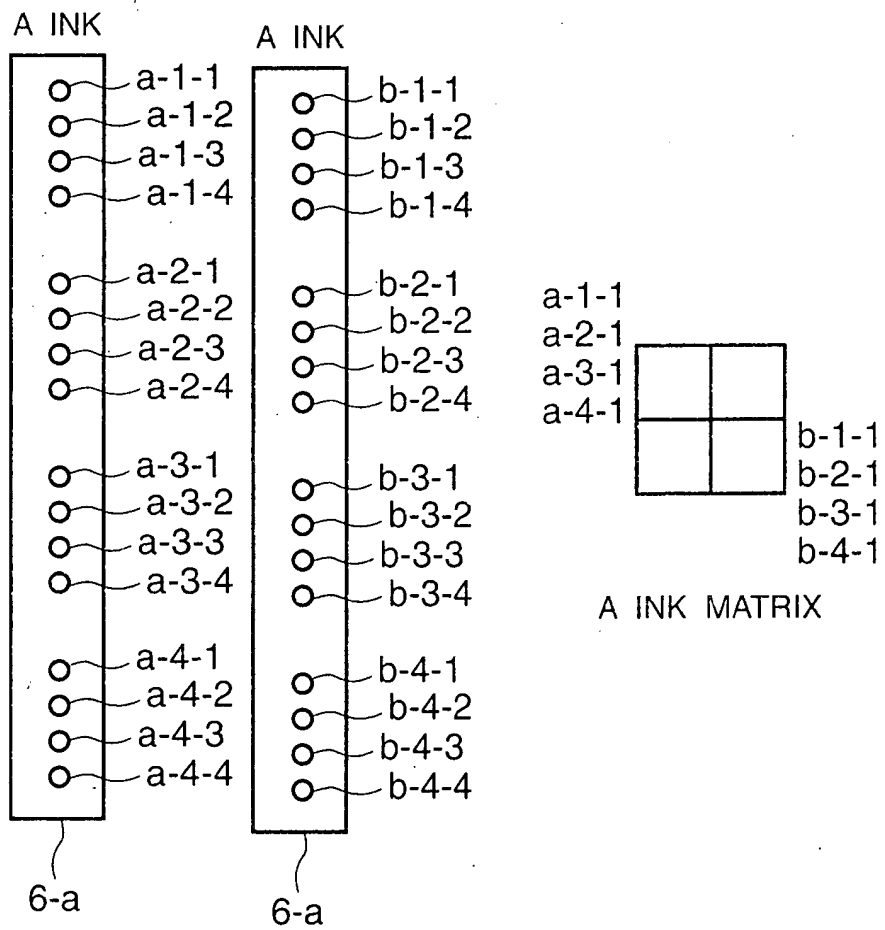
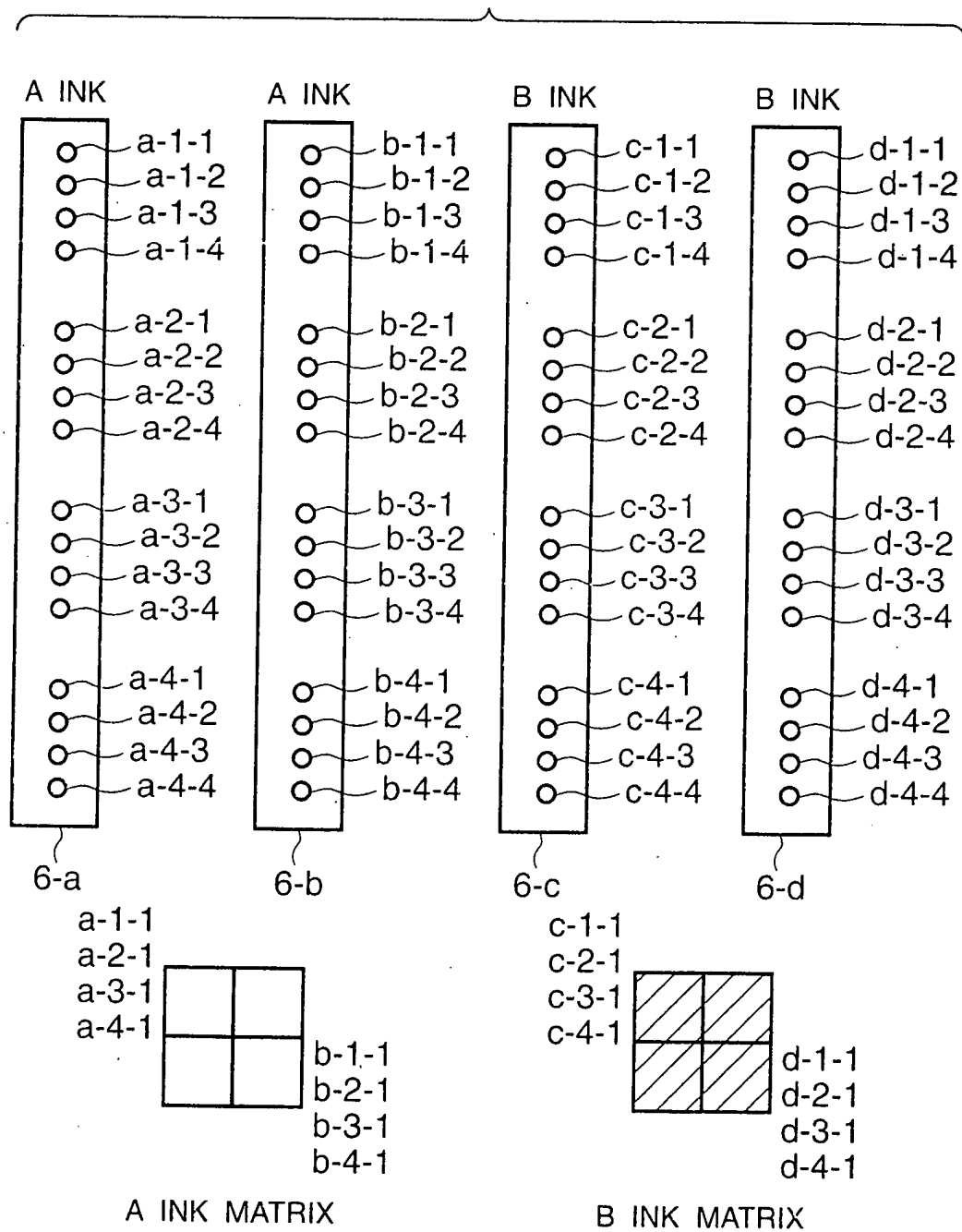


FIG. 7





**FIG. 8**

**FIG. 9**

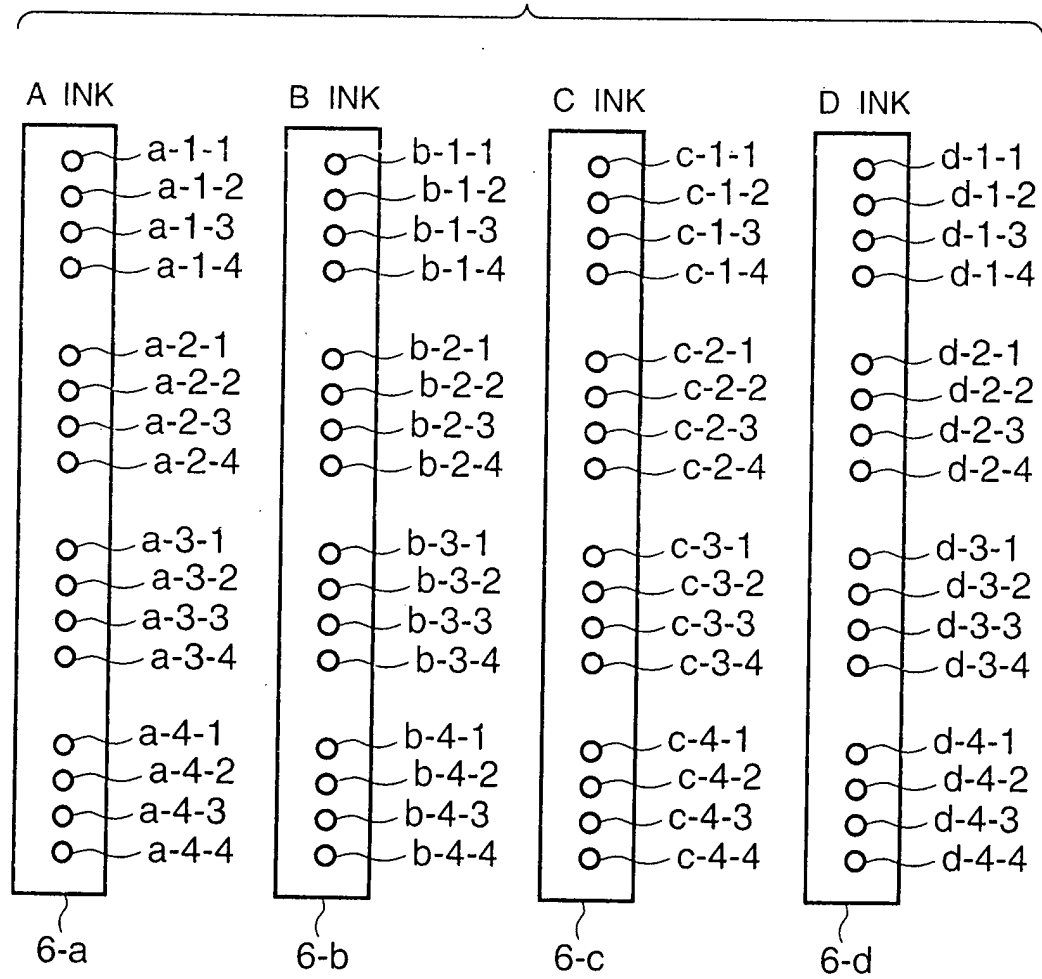
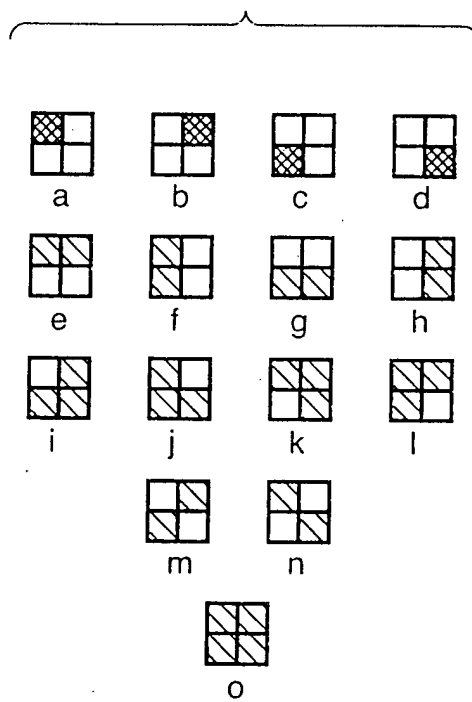
**FIG. 10**

FIG. 11



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FIG. 12

	PATTERN 1				PATTERN 2				PATTERN 3			
GRAY LEVEL	UPPER LEFT	UPPER RIGHT	LOWER LEFT	LOWER RIGHT	UPPER LEFT	UPPER RIGHT	LOWER LEFT	LOWER RIGHT	UPPER LEFT	UPPER RIGHT	LOWER LEFT	LOWER RIGHT
0	0	0	0	0	0	0	0	0	0	0	0	0
1	1	0	0	0	0	1	0	0	0	0	1	0
2	2	0	0	0	0	2	0	0	0	0	2	0
3	3	0	0	0	0	3	0	0	0	0	3	0
4	4	0	0	0	0	4	0	0	0	0	4	0
5	5	0	0	0	0	5	0	0	0	0	5	0
6	6	0	0	0	0	6	0	0	0	0	6	0
7	7	0	0	0	0	7	0	0	0	0	7	0
8	8	0	0	0	0	8	0	0	0	0	8	0
9	8	1	0	0	1	8	1	0	0	0	8	1
10	8	1	0	0	1	8	1	0	1	0	8	1
11	8	2	1	0	2	8	1	0	1	0	8	2
12	8	2	2	0	2	8	2	0	2	0	8	2
13	8	2	2	1	2	8	2	1	2	1	8	2
14	8	2	2	2	2	8	2	2	2	2	8	2
15	8	3	3	2	3	8	3	2	3	2	8	3
	PATTERN 4				PATTERN 5							
GRAY LEVEL	UPPER LEFT	UPPER RIGHT	LOWER LEFT	LOWER RIGHT	UPPER LEFT	UPPER RIGHT	LOWER LEFT	LOWER RIGHT	UPPER LEFT	UPPER RIGHT	LOWER LEFT	LOWER RIGHT
0	0	0	0	0					0	0	0	0
1	0	0	0	1					1	0	0	0
2	0	0	0	2					1	0	0	1
3	0	0	0	3					1	1	0	1
4	0	0	0	4					1	1	1	1
5	0	0	0	5					2	1	1	1
6	0	0	0	6					2	1	1	2
7	0	0	0	7					2	2	1	2
8	0	0	0	8					2	2	2	2
9	0	0	1	8					3	2	2	2
10	0	1	1	8					3	2	2	3
11	0	1	2	8					3	3	2	3
12	0	2	2	8					3	3	3	3
13	1	2	2	8					4	3	3	3
14	2	2	2	8					4	3	3	4
15												

FIG. 12

FIG. 13

GRAY SCALE VALUE	A INK	B INK	C INK	D INK
0	0	0	0	0
1	1	0	0	0
2	2	0	0	0
2	0	1	0	0
3	3	0	0	0
3	1	1	0	0
4	4	0	0	0
4	2	1	0	0
4	0	2	0	0
4	0	0	1	0
5	3	1	0	0
5	1	2	0	0
5	1	0	1	0
6	2	2	0	0
6	0	3	0	0
6	2	0	1	0
6	0	1	1	0
7	1	3	0	0
7	1	1	1	0
8	0	4	0	0
8	0	0	2	0
8	0	0	0	1

FIG. 13 (continued)

**FIG. 14**